AMBULATORY CARE QUALITY MEASURES AND PUBLIC REPORTING: AN ENVIRONMENTAL SCAN

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Background

In 1998, the legislature of Rhode Island enacted a law (General Law of RI, Section 23-17.17) requiring public reporting of health care performance for all licensed health care facilities. This legislation mandated the reporting of standardized measures that could be compared across facilities of the same type. Both clinical performance and patient satisfaction would be reported. Since that time, led by the Department of Health (HEALTH), which has responsibility for implementing the law, and a Steering Committee, composed of stakeholders and providers as mandated by the legislation, the state has moved forward to accomplish these goals. The first public report in November 2001 focused on patient satisfaction in hospitals (Barr, et al. 2002), and a second hospital patient satisfaction report was released in Fall 2003. In addition, two public reports on hospital clinical performance have been released. Clinical performance in both nursing homes and home health agencies, based on Medicare data and measures, is publicly reported on the HEALTH web site (http://www.health.ri.gov/chic/performance/index.php). Patient and family satisfaction in nursing homes is currently being collected for public reporting following a pilot data collection period. The process of instrument development using an external vendor for collection of home health patient/client satisfaction is nearing completion, and the data collection process will follow. Thus, public reporting of both clinical performance and patient satisfaction is actively underway for hospitals, nursing homes, and home health agencies. Under a separate legislative mandate (General Law of RI, Section 23-17.13), public reporting for health plans is also underway.

The next type of facility to be included in the public reporting program is ambulatory care/community health centers. These facilities differ from the first three types in that care is delivered in an office-based outpatient setting, rather than in the hospital, nursing home, or home care settings. Community health centers (CHCs) differ in other ways. The health centers are funded by the federal government to provide primary care in local federally designated medically underserved areas (Taylor 2004). CHCs treat predominantly low-income patients and must provide comprehensive ambulatory services, include center patients on the governing boards, adjust fees to ability to pay, and have nonprofit, tax-exempt status. Health centers that qualify are designated as a Federally Qualified Health Center (FQHC), as determined by receiving a grant under §330 of the Public Health Service Act, those centers meeting the requirements for §330 funding but not actually receiving funding ("look-alikes"), and those facilities operated by an Indian tribe or organization. The Bureau of Primary Health Care (BPHC) of the Health Resources and Services Administration (HRSA) administers the health center program. Approximately two-fifths of health center patients are uninsured, and Medicaid covers more than one-third of patients; private insurance (15%), Medicare (7%), and other public funding (3%) make up the remaining funding sources (Taylor 2004).

As with the other types of settings, the first step in developing an operational plan to implement public reporting for health centers is an environmental scan, a detailed report of the current state of measurement and reporting of health care quality. The main purpose of this ambulatory care environmental scan is to identify the state-of-the-art in public reporting of ambulatory care measures that could be applicable to community health center performance measurement and reporting. The following objectives have guided this project:

- Review types of measures available for use in public reporting on ambulatory care performance;
- Review existing public reports on ambulatory care in other states and regions;
- Review existing data sets in Rhode Island that might be applicable to public reporting on ambulatory care; and
- Develop recommendations for HEALTH about public reporting of clinical performance and patient satisfaction in ambulatory care settings.

Methods

Data Collection Sources and Techniques

Information was gathered on ambulatory care measures (both clinical performance and patient satisfaction) and data sets, on public reports of ambulatory care. A three-pronged approach was used to collect information both nationally and in Rhode Island. Data collection methods included: literature review; website/document review; and key informant interviews.

Literature Review. The literature review includes published reports on the development and use of ambulatory measures found in the peer-reviewed literature. Searches of relevant publications were made using the National Library of Medicine's Pub Med system. Most of these publications concerned measure development, and others were related to public reporting for medical groups. The useful citations that resulted from these searches are listed in the References (p. 11).

Website/Document Review. We searched the Internet, especially the websites of organizations known to be involved in the development of ambulatory care measures (e.g., Agency for Health Care Quality and Research, AHRQ), and reviewed materials and reports found from this source. We used the Internet to identify states, regions, coalitions, and other entities that currently publish comparative reports of ambulatory care measures in a variety of ambulatory care settings (e.g., community health centers, medical groups).

Key Informant Interviews. The searches for information on ambulatory care measures and public reports were supplemented by key informant interviews. A total of six interviews were conducted, four by telephone and two by email. Phone interviews were brief and averaged 15 minutes, with the longest being 75 minutes. The interviews were used primarily to learn about and assess the utility of existing ambulatory measures being collected nationally and in Rhode Island for public reporting.

Criteria for Review

Providers. The delivery of ambulatory care occurs in a variety of settings. While the focus of the next public reporting initiative in Rhode Island is on community health centers, the scope of this review goes beyond this one setting to include: medical group practice; health plans/HMOs; and independent office-based practice. This broader scope means that we reviewed measures that may be developed and/or apply to this range of settings for ambulatory care, as well as public reports on these settings. While different measure sets may reflect the different purposes in varied settings, the data collection may be the same; and a single data collection could serve multiple measure and reporting purposes (American Medical Association, 2001).

Populations Served. We did not limit the scope of the populations included in the measures or reporting of ambulatory care. Therefore, they may be applied to both children and adults and to Medicaid recipients, Medicare beneficiaries, veterans, health plan/HMO members, CHC members, privately insured persons, and uninsured persons.

Findings

The search for information on measures and public reports of ambulatory care has yielded results on two levels: national and local. The "national level" refers to information that is produced without respect to locality (e.g., AHRQ measures) or in a variety of locales, whereas the "local level" refers to information that describes ambulatory care measures and reporting in Rhode Island.

National Level

Ambulatory Care Measures. As shown in Table 1: Ambulatory Care Measures by Data System, ambulatory care measures can be broadly grouped into those that measure processes of care and those that measure patient satisfaction/experience. The processes of care measures include the following categories of care: antibiotic overuse in children; asthma; diabetes; elder care; end stage renal disease; heart disease; hypertension; immunization (children and adults); mental and behavioral health; osteoporosis; pneumonia; postpartum care; prenatal care; preventive screening; and tobacco use. Patient satisfaction/experience measures include: the Consumer Assessment of Health Plans Survey (CAHPS); a variation of CAHPS for ambulatory care settings (A-CAHPS); and the Consumer Assessment Survey (CAS), a modified version of the CAHPS instrument developed in California to measure satisfaction at the practice level.

The review identified ten data systems that focus on ambulatory care measures. As shown in Table 1, the Data Systems include national professional organizations (e.g., NCQA, NCQA-HEDIS, NQF, CCHRI), medical associations (e.g., AMA, AQA), and government agencies (e.g., CMS, AHRQ, VHA, BPHC). The measures represent those being developed, designed, proposed, and/or recommended by one or more of these data systems to assess ambulatory care performance. Table 1 links the process of care and patient satisfaction measures to the appropriate data system, showing all data systems relevant to any particular measure.

Using the data shown in Table 1, the results indicate that the most widely supported measures are those related to diabetes care and prevention. There are eight diabetes measures, one of which (HbA1c screening) is the focus of six of the data systems, while two diabetes measures (blood pressure control and eye exams) are the focus of five data systems. Although there are 11 heart disease measures, four data systems focus on just two of these measures, and the others are the focus of three or fewer of the data systems. (It should be noted that two of the heart disease measures refer to processes that may occur in the hospital.) In the mental and behavioral health category, there also are 11 measures; one of these is the focus of three data systems, while the others are included in only one or two data systems. Mammography screening is the focus of six data systems, while four data systems focus on cervical cancer screening and four on colorectal cancer screening. Adult immunizations, both influenza and pneumococcal, are the focus of four data systems, as is asthma medication management and tobacco use cessation intervention. All other process of care measures are supported by fewer than four data systems. The measures of patient satisfaction/experience are found in the HEDIS data system, measures used predominantly by health plans, and in the AHRQ data system, where the new ACAHPS, or ambulatory care patient satisfaction measures, is under development. In some categories, BPHC

reports only utilization measures; similarly, VHA reports composite measures across conditions (as noted in the Table).

Summary – This review of ambulatory care measurement indicates that there are common measures being used by a variety of data systems. The most widely supported measures are those related to diabetes care, cancer screening (for breast, cervical and colorectal cancer), adult immunizations, asthma management, and smoking cessation. Such measures could be used in the community health center setting so that performance could be compared with other settings.

Public/Other Reporting. Reporting on ambulatory care measures has focused on different settings of care, in particular, for medical group practices and health plans. These two settings have a history of reporting quality performance. Public reports on ambulatory care measures for medical group practices are shown in Table 2. Reports are included that meet three criteria: free access to the reports; contain ambulatory measures (excluding ambulatory surgery); and report on medical group practices. The table provides the following information for each report: sponsorship; report name; type of group; measures reported; measurement/data system; state/area covered in report; web site address; and current status of reporting. Four types of sponsors were identified: health plans; business and other coalitions; government entities; and other national organizations. Of the 20 public reports identified, health plans sponsored eight, coalitions sponsored eight, government sponsored three, and other organizations sponsored one. In most cases, the type of group is medical group practice. Variations include physician groups, care systems, clinics, physician networks, practice sites, and primary care practices. In two reports, health plans are also included, one where the sponsor is the health plan and another where health plans are listed with medical groups. The one national report includes individual physicians. Measures and measurement/data systems include both national measures shown in Table 1 and local measures developed by the sponsor. For example, HEDIS measures are used by six reports, and three reports use local measures. Most reports cover a specific state, while some cover a larger geographic area. Several reports are no longer being issued, and the current status of several is unknown.

In addition to the public reports on medical groups, there are public reports at the level of the HMO, health plan, or managed care plan. These reports are sponsored by business and other coalitions, state entities, and other health care organizations. A recent report (Kingsley 2002) indicated that 26 states published reports on health plan performance and made these reports available to the public; most (23/26) of these reports included data on health plan member satisfaction, and nearly as many (19/26) reported HEDIS measures of quality. Some health plan reports may include reports on the medical group or physician practice, but they tend to report at the level of the health plan in a way that obscures the medical group/practice level. Health plan reports currently tend to include both clinical quality measures and patient experience measures. The large majority of these reports is sponsored by state governments; some are sponsored by purchasers, and a few are sponsored by healthcare quality organizations. Selected examples of such health plan reports are shown in Table 3. They include: California; Florida; Maryland; Massachusetts; Missouri; New Jersey; New York; Rhode Island; Texas; Utah; and Wisconsin. Of the 11 reports reviewed for these states, nine are sponsored by the state department of health or other state governmental agency; and two are sponsored by coalitions. Several report

performance for Medicaid and Medicare health plans, and all report HEDIS measures and CAHPS.

Summary. Public reporting of ambulatory care measures has focused on medical groups and health plans. Medical group public reports tend to be sponsored by health care organizations and business or other coalitions interested in comparisons at the level of the medical practice. Health plan public reports tend to be sponsored by state governments showing comparisons at the health plan level. HEDIS measures are used in both sets of reporting, not widely, but more than any other data system. HEDIS measures could be applied to public reporting for CHCs in Rhode Island, and medical group/health plan public report formats could be useful in determining a format for public reporting on CHCs. Most reports use some type of comparison group average and/or benchmark, but they vary with the specific report and locale.

Community Health Centers (CHCs). We found no examples of public reporting on CHCs. Although the CHCs report data to the Bureau of Primary Care (BPC) of the US Department of Health and Human Services, these data are not routinely made public by BPC other than an annual report on the UDS data, at the national, regional or state level. An earlier article in the Journal of Ambulatory Care Management (Abrams, et al. 1995) provided some insight into the data reporting capabilities of BPC. Typically, data are collected on utilization, costs, demographic characteristics of users, staffing, and other factors. The only quality of care measures are selected diagnostic tests, screening, or preventive services, such as mammography screening and selected immunizations (Bureau of Primary Health Care 2005).

Several CHC associations (e.g., Association for Health Center Affiliated Health Plans, National Association of Community Health Centers, National Association of Rural Health Clinics) have web sites but also do not report quality data. Comparative studies of quality of care in CHCs and other health care settings suggest that quality of care is similar or better in some areas of care. Based on survey data, one study indicated that CHC users reported more continuity, coordination, and comprehensiveness of care than HMO members (Shi, et al. 2003); and another found that CHCs provided preventive screening services at the same rate as HMOs and private doctors' offices (O'Malley and Mandelblatt 2003). These data are self-reported and do not allow for comparison of clinical data on preventive services; in one study, the measures are perceptions of the way care is delivered. While such data reports are useful, they should be complemented by reports on measures that can be more easily compared across settings and locations. A report on patient satisfaction in CHCs compared aggregate results in 1993 and 2001 and found an increased proportion of patients indicating they were "very satisfied" – from 41% to 63%, results that compare favorably to other ambulatory settings (Roby, et al. 2003).

Rhode Island

Community Health Centers (CHCs). There are 12 health centers in Rhode Island; seven are FQHCs, three are 'look-alikes' and one is an island based health center. Altogether, the CHCs cover four of the five counties in RI. Six CHCs have a single site location, and the remaining are multi-site facilities. CHCs are affiliated with 10 of the 11 general adult hospitals in the state. All of the health centers offer comprehensive primary and preventive care services;

eight provide dental services and four provide mental health services. A wide range of provider types serve Rhode Island CHC patients, including: Family Practice physicians; Adult Medicine physicians; Pediatricians; Nurse Practitioners; Endocrinologists; Obstetrician/Gynecologists; Dentists; Ear, Nose and Throat Specialists; Infectious Disease Specialists; Women's Health physicians; and Nurse Practitioners. Other provider types include: Dental Hygienists; Audiologists; Psychotherapists; Social Workers; Optometrists; Podiatrists; Dieticians; Orthodontists; Pharmacists; Nurse Midwives; Chiropractors; Acupuncturists; and Massage Therapists. Interpretation services are offered by some CHCs for Spanish, Portuguese, Creole, French, Arabic, Italian and Laotian speaking patients and for those who require Sign Language interpretation (http://www.rihca.org/).

Ambulatory Care Data Sets. In Rhode Island, a number of existing data sets capture information that might have the potential to be used for ambulatory care measurement and reporting. They include: Rhode Island Health Center Association (RIHCA), Medicaid MMIS, KIDSNET, Lead Elimination Surveillance System (LESS), and Rhode Island HEALTH Laboratories. Each of these data sets is used for a purpose other than public reporting, and the data are collected to meet the needs of the particular program. Two questions about these data sets required an answer to understand their relevance to the public reporting program: (1) are any of the data currently publicly reported in Rhode Island; and (2) what is the potential for using any of the data for public reporting in Rhode Island in the future? The interviews with key personnel about each data set provided information to answer these questions.

- RIHCA – The 12 community health centers in Rhode Island report data routinely to the Rhode Island Community Health Center Association (RIHCA) where the data are maintained in a data warehouse. The data include demographic and claims data, collected monthly (quarterly, in some cases), and comprised of a rolling 18 months of data. Although these data have been collected since 2001, complete data are available on all health centers for 2003 to the present. When the data are received, RIHCA reformats the data into a standardized format. There is a process for checking the data for inconsistencies. The data elements include: diagnosis and procedure codes, as well as date and place of service from the claims data, and demographic information from the member file. The health centers that are federally qualified also now report data from the Uniform Data Set (UDS) that is submitted to BPC. RIHCA has publicly reported CHC data twice since 2002, excluding UDS data. The latest report (RIHCA 2004) displays demographic and utilization data in aggregate, including primary reason for visit and type of health problem, but no quality indicator data. Currently, data are in aggregate form only, but there is potential for reporting by CHC and individual provider. RIHCA also reports health center level data to Neighborhood Health Plan of Rhode Island (NHPRI) on an ad hoc basis as requested; however, these reports are not considered public.

- NHPRI – Neighborhood Health Plan of Rhode Island (NHPRI) reports HEDIS data to NCQA for the 10 health centers in its network. These data are also reported to HEALTH where they are publicly displayed on the web site (Cryan 2004). Both clinical performance and patient experience are included in the data collected for these purposes. Two sets of patient experience data are collected: CAHPS data for HEDIS reporting, which is required, and data using the BPHC tool to measure patient satisfaction, a voluntary process that is not

required as part of the UDS data submission. RIHCA receives NHPRI satisfaction data; however, the HEDIS data are in aggregate, while the BPHC visit-based survey is available by practice setting. The data are reported back to the health centers where the data may be analyzed, or it may be given to RIHCA for aggregation and analysis.

- Medicaid MMIS – CHCs submit data to Medicaid MMIS along with individual providers, health plans, hospitals, and any others who see Medicaid patients. The data are based on Medicaid claims for covered services and include: preventive and acute visits, hospitalizations, pharmacy prescriptions, dental care, and durable medical equipment. Ambulatory HEDIS measures are included in the submitted data. The Department of Human Services (2004) publicly reports these data in aggregate form on an annual basis. Ad hoc standard reports are provided to program managers, and state agencies sometimes request ad hoc or standard reports. Data could be reported at the patient, provider, health center, or health plan level. No public reports present data at the provider level; however, reports generated for in-house use may be at the provider level. With a grant from the Robert Wood Johnson Foundation, the Rhode Island Medicaid Research and Evaluation Project (Rhode Island Department of Human Services 2005) established a Medicaid data archive from which extracts can be generated. This capability would allow for aggregation of data for subsets of Medicaid recipients, individual providers, or facilities (e.g., CHCs) that could be used in reports.

- KIDSNET – This database maintains files on children born after January 1, 1997. Data are submitted from a variety of sources, including program such as Head Start and WIC, school nurses, pediatric providers, and Vital Records. The only data from CHCs are patient-specific immunization data; no individual provider information is included. Submission of data to KIDSNET is voluntary and immunization files are approximately 70%-80% complete. A public report with aggregate data was recently released (Rhode Island Department of Health 2006a) and may become an annual report. The data in KIDSNET are used internally to help evaluate programs and identify children who are missing services. Individual provider or practice reports can be generated to show: children in the practice by age; children missing lead screening by age and other factors; children behind on immunizations by age or vaccine type. Other reports that are available on request provide aggregate numbers, e.g., number children born in 1998 and never received lead screening.

- Lead Elimination Surveillance System (LESS) – Rhode Island legislation requires all children less than six years old to be screened for lead. The three laboratories that process lead screening specimens submit data to LESS. The database also includes case management and environmental inspections information. Reports are found on the Rhode Island Department of Health (2006b) website in the Data section. Data cannot be reported at the health plan level or provider level because insurance is not routinely reported. Most data come from the laboratories.

- Health Laboratory Database – The Rhode Island HEALTH Laboratories maintain two sets of databases: environmental (public health chemistry) and clinical (public health microbiology). The clinical database tracks the testing that is conducted for the state health laboratory and includes information on testing for: HIV, reportable diseases (e.g., tuberculosis), childhood

lead testing, and serology and microbiology lab tests for sexually transmitted diseases (STD) and rubella. Individual providers, hospitals, health centers, and commercial laboratories submit data. Individual results are reported back to physicians as part of patient care. Data are also reported to specific offices and programs within the Department of Health (e.g., lead surveillance). These programs report aggregate results, as required. No other public reporting is done.

Summary. Several existing databases were identified in Rhode Island because they include ambulatory care data that may be applicable to public reporting. Based on interviews with key personnel involved in the data collection, maintenance, and reporting for these databases, it appears that the RICHA and NHPRI databases are the most closely related to the measures and capabilities needed for public reporting of ambulatory care performance. The Medicaid MMIS database also has relevant data capabilities but is limited to Medicaid recipients. The KIDSNET database has immunization data but not in the same form as is typically measured for quality performance. The LESS database is limited in both data collected and report capabilities. The Health Laboratory Database has the potential to report laboratory test results, but they are not the ones often used in quality reporting, e.g., Hba1c level for patients with diabetes.

Public Reporting Potential. Two issues have been identified that have a bearing on the public reporting potential for using existing databases in Rhode Island: availability of data, including types of ambulatory care measures; and capability of aggregating data across data sets, types of care, and providers.

- Data availability – Both RIHCA and NHPRI collect measures that are parallel to ambulatory care measures used nationally. In particular, NHPRI collects HEDIS clinical data and patient satisfaction data, which are shared with RIHCA. The Medicaid MMIS data set has HEDIS measures and other data available on CHCs for the Medicaid population. This data set could be used for reporting at the CHC level. The other data sets we identified are focused almost entirely on children. The available measures for children might be used to supplement other existing measures, e.g., lead screening. In addition, 11 of the 12 health centers participate in a quality improvement collaborative for which they maintain individual patient registries; data are collected by clinical condition (e.g., diabetes, asthma). Ideally, such data could be used for public reporting. However, using existing data sets means that reports would have to be selective because all measures are not available for reporting.

- Data aggregation – No public reporting comparing CHCs could be identified. The existence of several databases in Rhode Island with data that would be appropriate to be reported as ambulatory care measures raises the issue of how data would be aggregated for public reporting. For example, data from the CHC patient registries could provide measures of diabetes care, but the data would need to be aggregated from all 11 CHCs and then transformed into reportable measures. RIHCA might be a vehicle through which such data could be collected and then reported comparatively. Likewise, using HEDIS data for public reporting would require additional analyses to report the data at the CHC level. Data from NHPRI might be a good source of reportable measures, but

they do not cover the entire CHC population, i.e., uninsured and Medicare populations not included.

Discussion and Recommendations

A wide range of public reporting on ambulatory care measures has been identified. Reporting targets both medical group practice and health plans, two ambulatory care settings most like community health centers. The differences between the requirements of these settings, where there is more experience with public reporting, and community health centers, where there is little experience, have yet to be explored. Building on the extensive previous work conducted nationally on ambulatory care measures and the extensive experience with reporting such measures comparatively on states' and other entities' websites is a promising path, so HEALTH does not have to "reinvent the wheel." While there are a number and variety of data sets in Rhode Island that currently collect ambulatory care data, several limitations were noted. Based on the information described in this paper, the following recommendations for publicly reporting ambulatory care measures for community health centers in Rhode Island are proposed for HEALTH.

1. Build on health plan and medical group practice measures and reporting, beginning with HEDIS-type measures.
    - Review suitability of existing measures for public reporting.
    - Decide priorities of which measures to report.
2. Develop plan for collaboration between community health centers and organizations representing the CHCs.
    - Explore mechanism for aggregating and analyzing data for reporting.
    - Explore development of public report format for CHCs.
3. Work through CHC representative organizations (e.g., RICHA, NHPRI) for planning, decision making and implementation.
    - Convene CHC Measures Subcommittee to report to Steering Committee.
    - Invite CHC representatives, and possible representatives of health plans and/or medical group practices (if involved in public reporting).

In considering these recommendations, several limitations and concerns should be taken into account:

- Consider using existing HEDIS-like measures.
    - How can the uninsured population and the Medicare population seen in CHCs be included in the measurement and reporting of ambulatory care?
    - Are the Commercial HEDIS measures applicable to the population mix of CHCs?
- Review capabilities of the CHCs to produce data for public reports.
    - Can chart review or other methods be used for uninsured and Medicare members?
    - Will sample sizes be adequate for valid public reporting?
    - Can/should data be reported by type of insurance coverage?
    - Should patients of all ages be included in the public report?
- Consider a collaboration model for using existing data and building infrastructure for aggregation and analysis of data.

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Table 1. Ambulatory Care Measures by Data System

MEASURES	DATA SYSTEMS									
	NCQA[1]	NCQA: HEDIS[2]	NQF[3]¶*	CMS[4]	AQA[5*]	BPHC[6]¶	AHRQ[7]	CCHRI[8]	AMA[9]¶	VHA[10]
PROCESS OF CARE MEASURES										
Antibiotic overuse in children										
Children 3 mo-18 yrs w/o rx for antibiotic in 3 days for URI		√	√		√					
Children age 2-18 diagnosed w/ pharyngitis, prescribed antibiotic & given strep test		√	√		√					
Asthma						X				
Medication management		√ (age 5-56)	√ (age 5-56)		√				√ (age 5-40)	
Asthma assessment			√						√ (age 5-40)	
Diabetes						X				X
HbA1c (blood glucose) screening for patients age 18-75	√	√	√	√	√				√	
Foot exam	√		√						√	
Blood pressure control	√		√	√ (age 18-75)	√				√ (age 18-75)	
Eye exam	√	√ (age 18-75)	√		√				√	
Lipid profile	√		√						√	
LDL cholesterol		√	√	√ (age 18-75)	√					
Monitor kidney disease		√	√							
Smoking cessation counseling	√		√						√	
Elder care										
Falls screening				√						
Hearing acuity screening				√						
Urinary incontinence screening				√						
End stage renal disease										
Dialysis dose				√						
Hematocrit level				√						
Autogenous ateriovenous fistula in patients requiring hemodialysis				√						

Table 1. Ambulatory Care Measures by Data System

MEASURES	DATA SYSTEMS									
	NCQA[1]	NCQA: HEDIS[2]	NQF[3]¶*	CMS[4]	AQA[5*]	BPHC[6]¶	AHRQ[7]	CCHRI[8]	AMA[9]¶	VHA[10]
Heart disease						X				X
Beta blocker after heart attack		√		√	√					
Aspirin at arrival for AMI				√						
Control high blood pressure		√								
Test LDL cholesterol		√ (age 46-85)	√ (age 18-75)							
Advise smokers to quit		√	√						√	
ACE inhibitor or angiotensin-receptor blocker therapy for LVSD			√	√	√				√	
Beta-blocker therapy for left ventricular systolic dysfunction			√	√						
Beta-blocker therapy for patients with prior MI			√	√	√				√	
Antiplatelet therapy for patients with coronary artery disease			√	√					√	
LDL control in patients with coronary artery disease			√		√				√	
Warfarin therapy for patients w/ HF & AFIB			√	√					√	
Hypertension										X
Plan of care			√						√	
Immunization										
Adults: Pneumococcal		√	√	√	√					
Adults: Influenza			√ (age 50+)	√ (age 50+)	√ (age 50-64)				√ (age50+)	
Children: Received all immunizations by 2 yrs		√	√			√				
Children: Received all 2nd vaccinations for MMR, 3 for HepB & 1 for chicken pox by 13 yrs		√	√			√				
Mental and behavioral health						X				X
Refer to specialist for medication follow-up		√								
Follow-up after hospitalization for mental illness		√	√							

Table 1. Ambulatory Care Measures by Data System

MEASURES	DATA SYSTEMS									
	NCQA[1]	NCQA: HEDIS[2]	NQF[3]¶*	CMS[4]	AQA[5*]	BPHC[6]¶	AHRQ[7]	CCHRI[8]	AMA[9]¶	VHA[10]
Initiate & continue treatment for alcohol & substance abuse		√								
Medication for depression – remained on medication 12 weeks after initial diagnosis		√			√					
Antidepressant medication during acute phase for patients w/new episode of depression			√	√						
Antidepressant medication duration for patients w/new episode of major depression			√	√	√					
Patients w/new diagnosis of depression with 3+ visits with PCP or mental health practitioner during 12 week acute phase			√							
Continuation of antidepressant medication			√							√
Suicide risk assessment			√							√
Severity classification			√							√
Treatment – psychotherapy, medication management, &/or ECT			√							√
Osteoporosis										
Manage in women after fracture		√	√	√						
Screening in elderly females				√						
Prescription for calcium & vitamin D supplements				√						
Anitresorptive therapy and/or parathyroid hormone treatment in newly diagnosed osteoporosis				√						
Annual assessment of function & pain			√	√					√	
Pneumonia										
Antibiotic administration timing for patient hospitalized for pneumonia				√						

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MEASURES	DATA SYSTEMS									
	NCQA[1]	NCQA: HEDIS[2]	NQF[3]¶*	CMS[4]	AQA[5*]	BPHC[6]¶	AHRQ[7]	CCHRI[8]	AMA[9]¶	VHA[10]
Postpartum care						X				
Postpartum visit 21-56 days after delivery		√								
Prenatal care						X				
Prenatal visit in 1st trimester		√								
HIV screening			√		√				√	
Anti-D immune globulin			√		√				√	
Preventive screening										
Mammography biannually		√ (age 50-69)	√ (age 50-69)	√ (age 40+)	√	√			√ (age 50-69)	
Colorectal cancer screening		√	√		√				√	
Cervical cancer screening		√	√		√	√				
Chlamydia screening		√	√							
Tobacco use										X
Patients queried about tobacco use 1+ times in 2 yrs			√		√				√	
Tobacco users received cessation intervention in 2 yrs			√	√	√				√	
PATIENT SATISFACTION/EXPERIENCE MEASURES										
CAHPS										
Getting needed care		√					√			
Getting care quickly		√					√			
How well doctors communicate		√					√			
Courtesy, respect, and helpfulness of office staff		√					√			
Health plan customer service, information, and paperwork		√					√			
A-CAHPS^										
Providing Care Quickly (Access)							√			
Providing Needed Care (Access)							√			
Doctor Communication							√			
Office Staff Courtesy, Helpfulness and Respect							√			

Table 1. Ambulatory Care Measures by Data System

MEASURES	DATA SYSTEMS									
	NCQA[1]	NCQA: HEDIS[2]	NQF[3]¶*	CMS[4]	AQA[5*]	BPHC[6]¶	AHRQ[7]	CCHRI[8]	AMA[9]¶	VHA[10]
Shared Decision-making							√			
Coordination/Integration							√			
Health Promotion and Education							√			
Customer Service							√			
CAS										
Timely Care and Service								√		
Doctor-Patient Communication								√		
Getting Treatment and Specialty Care								√		
Office Staff								√		
Coordination of Care								√		

[1]NCQA: National Committee on Quality Assurance sponsors a report, 'Recognized Physician Directory' which includes measures from the National Diabetes Quality Improvement Alliance. www.ncqa.org/physicianqualityreports.htm
[2] HEDIS: Health Employer Data and Information Set is sponsored by NCQA for reporting of measures by health plans. www.ncqa.org/Programs/HEDIS
[3]NQF: National Quality Forum – All of the measures with the exception of the diabetes measures are proposed for endorsement; the diabetes measures have previously been reviewed and endorsed by NQF. www.qualityforum.org/ambulatory_care_evals.html
[4]CMS: These measures are part the 'Physician Voluntary Reporting Program.' www.cms.hhs.gov/media/press/release.asp?Counter=1701
[5]AQA: Ambulatory care Quality Alliance - initially convened by the American Academy of Physicians, the American College of Physicians, America's Health Insurance Plans, and AHRQ. www.ahrq.gov/qual/aqastart.htm
[6]BPHC: Bureau of Primary Health Care - Reports utilization measures (# encounters and # users). www.bphc.hrsa.gov/uds/default.htm
[7]AHRQ: Agency for Healthcare Research and Quality www.ahrq.gov/qual/cahpsix.htm
[8] CCHRI – California Cooperative Healthcare Reporting Initiative - developed the Consumer Assessment Survey (CAS), which is a modified version of G-CAHPS, Group-level CAHPS. www.cchri.org/reports/medical_groups.asp
[9]AMA - The Physician Consortium for Performance Improvement (Consortium), includes representatives from more than 70 national medical specialty and state medical societies, the AHRQ, CMS, and others. www.ama-assn.org/ama/pub/category/2946.html
[10]VHA – Veteran's Health Administration. Reports a composite measure of compliance with guidelines for specific clinical conditions. www.va.gov/budget/report/HTML/performance-section/summaries/goal3/index.html
^ACAHPS – Ambulatory CAHPS - This survey is in development.
*The NQF and AQA measures are proposed, they are not currently in effect.
¶ Selected measures listed, full set of measures available from source, for BPHC, NQF and AMA.

Table 2. Public Reports on Ambulatory Care Measures for Physicians/Medical Group Practices							
Sponsorship	**Report Name**	**Type of Group**	**Measures**	**Measurement System**	**State/Area Report Covers**	**Web Site Address**	**Currently reporting**
Health Plans							
Harvard Pilgrim Health Care	"Choosing Quality Doctors"	Physician groups	-Designates top PCPs affiliated with the plan who serve adults and pediatric patients. -Reports include HEDIS preventive care and chronic care measures -No patient experience	HEDIS	Physicians enrolled in the plan in MA, NH, ME &RI	http://www.harvardpilgrim.org/portal/page?_pageid=213,169254&_dad=portal&_schema=PORTAL&SMSESSION=NO	Yes
Tufts Health Plan	"2004 Physician Group Quality Profile"	Physician Groups	-25 measures are reported in two key areas: member satisfaction and preventive care. -Clinical preventive care measures are based on HEDIS indicators: diabetes, breast and cervical cancer screening, and well-child visits.	HEDIS & Tufts Health Plan survey	Plan covers MA, VT & RI	http://www.tufts-health.com/members/members.php?sec=quality&content=physician&rightnav=results	Yes
Pacificare	"Quality Index – Profile of Physician Groups"	Medical groups	-Reports on quality of medical groups available through the health plan in CA. -Includes measures of clinical care & service in 7 categories: staying healthy, appropriate care, patient safety, member satisfaction, complaints, physician group transfers, and appeals. Member satisfaction results are drawn from the CAS. Report also includes affordability measures.	Consumer Assessment Survey	CA	http://www.pacificare.com/commonPortal/index.jsp	Yes
HealthNet	"Medical Group Comparison Report"	Medical groups	Report on quality of care available through the health plan. Reports on clinical quality of care measures: process of care and utilization/volume. Reports patient satisfaction data from CAS	Consumer Assessment Survey HEDIS	Health plan coverage area: CA, AZ, OR, WA, CT, NJ, NY, PA	https://www.healthnet.com/portal/member/prvfinder/searchMedicalGroupsForm.do;jsessionid=Dhwpt23cr6wnvFcDpXF00Pv4GCGt1k1dsFGmMT3ZpTh6L8X8KLnc!2145565015?category=DoctorSearch&topic=CompareMedicalGroups&region=CA	Yes

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Sponsorship	**Report Name**	**Type of Group**	**Measures**	**Measurement System**	**State/Area Report Covers**	**Web Site Address**	**Currently reporting**
Medica	"Medica Quality Review Program"	Clinic system	-Reports on quality of clinics available through the health plan -This program offers three separate reports, each of which focuses on specific topics: Commercial Quality Improvement Results has measures for colorectal screening, hypertension, and continuity of care; Choice Care Quality Improvement Programs Results has measures for adult diabetes, childhood asthma, and child & teen checkup; and Medicare Quality Improvement Programs Results has measures for diabetes hypertension, colorectal screening, and continuity of care.	Medica combines several measurement systems	MN	http://member.medica.com/C2/FocusOnQuality/default.aspx#quality	Yes
Patient Choice Healthcare and HealthFront	"Patient Choice Signature: Care System Comparison Guide, Plan Year 2004"	Care systems (includes primary care physicians, specialists, hospitals and other health care pro-fessionals and facilities)	-Reports clinical performance measures by cost: diabetes care, preventive care, coronary artery disease and asthma. Also reports customer service capabilities by cost: appointment availability, EMR, E-prescribing, health education programs. Reports internet capabilities by cost: appointment scheduling, billing, record requests, lab results reporting, reminders, and physician visits. -Reports patient satisfaction by cost for adult care and care of children. Survey results available for both adults and children: adult data from FACCT's Compare Your Care survey; child data from CAHPS survey	CAHPS & FACCT	MN	http://www.patientchoicesignature.com/	Yes
Premera Blue Cross	"Premera's 2004 Quality Score Card"	Aggregate results of medical group per-formance	-Reports on the quality of care provided by medical groups participating in collaboration to improve quality in WA. -Includes measures for breast and cervical cancer screening, well-child visits, diabetes, asthma, ear infections, acute bronchitis, and patient satisfaction (use their own survey instrument). Cost measures refer to compliance with preferred drug list and use of generics.	Multiple sources: ADA, ACS, US Preventive Services Task Force, NIH	WA	https://www.premera.com/stellent/groups/public/documents/xcpproject/mwa_qs_overview.asp	Yes

Table 2. Public Reports on Ambulatory Care Measures for Physicians/Medical Group Practices							
Sponsorship	**Report Name**	**Type of Group**	**Measures**	**Measurement System**	**State/Area Report Covers**	**Web Site Address**	**Currently reporting**
Business/ Coalition							
CA Health Care Cooperative Reporting Initiative	"CCHRI Report on Quality: California Health Performance Results"	Health plans Medical Groups and IPAs	-Includes 4 sets of reports: HEDIS effectiveness of care measures comparing plan performance; CAHPS measures comparing plan performance; CAS report on satisfaction with medical groups & IPAs; and Provider After Hours Survey – survey of the same offices whose patients were surveyed in the CAS to determine if PCPs available after hours to talk with patients.	HEDIS; CAHPS; Consumer Assessment Survey	CA	http://www.cchri.org/	Yes
CA Healthcare Foundation	"La Buena Medicina"	Medical groups/ Clinics and health plans	-Report in Spanish on quality of medical groups -Reports colon cancer screening, and keeping cholesterol and blood pressure under control. Also reports patient experience.	Survey similar to CAHPS	CA	Not available on-line. Report distributed as newspaper supplement in "La Opinion."	Pub-lication Date 1999
Pacific Business Group on Health	"Healthscope"	Medical groups	-Reports consumer satisfaction data from CAS (overall care, getting treatment and specialty care, communicating with patients, coordinating patient care, timely care and service).	Consumer Assessment Survey	CA	http://www.healthscope.org	Yes
Wisconsin Collaborative for Health Care Quality	"2005 Performance Report"	Medical groups	-Reports measures: blood sugar control, blood sugar screening, controlling hypertension, kidney function monitoring, cholesterol control and testing, and appointment availability.	Developed by WCHQ	WI	http://www.wchq.org/Reporting/	Yes
Employer Health Care Alliance (Madison Alliance)	"Quality Counts: Consumer Information for Better Health Care: Medical Group Report"	Medical groups	-Reports results of CAHPS	The Alliance, FACCT & CAHPS	South-central WI	http://qualitycounts.org/results.html	Last report based on care 1998-1999
MN Community Measurement	"2005 Health Care Quality Report"	Provider Groups	-HEDIS effectiveness of care measures: asthma, depression, diabetes, hypertension, immunization for children & adolescents, well care for infants, screening for breast cancer, cervical cancer, and chlamydia infection. Report includes Optimal diabetes care (not a HEDIS measure).	HEDIS	MN	http://www.mnhealthcare.org/2005.PDF	Yes

Table 2. Public Reports on Ambulatory Care Measures for Physicians/Medical Group Practices							
Sponsorship	**Report Name**	**Type of Group**	**Measures**	**Measurement System**	**State/Area Report Covers**	**Web Site Address**	**Currently reporting**
MA Health Quality Partnership	"Health Partners Consumer Choice System"	Physician networks, Medical Groups and practice sites	-Report on clinical quality of physician networks in MA. -Reports a subset of HEDIS measures. -Practice site level results will be released to participating organizations and included physician practices in late 2005 and to the public in early 2006. -Patient experience information will be available in Winter of 2006	HEDIS	Commercial members of MA plans: BCBS of MA, Fallon, Health New England, Harvard Pilgrim & Tufts	http://www.mhqp.org/physicianquality/	Yes
ME Health Management Coalition	"About Maine Doctors"	Primary care practices	-Reports on office systems; adherence to clinical guidelines to prevent & manage chronic illness (modified HEDIS measures –diabetes, preventive visits, asthma, & cervical cancer screening); & measurements of results of patient care for diabetes & infant immunizations.	MHMC-developed survey; HEDIS; CDC; ADA	ME	http://www.mhmc.info/	Yes
Government							
CA Office of Patient Advocate	"2005 HMO Report Card" sponsored by Report on quality of medical groups in California"	Medical Groups	-Reports a summary score of 7 measures: asthma, childhood immunizations, breast & cervical cancer screening, & chlamydia testing, testing blood sugar & cholesterol. Outcomes measures: controlling cholesterol & blood sugar in diabetics -Patient experience measures: overall rating & individual ratings for coordinating patient care, timely care and service, getting treatment and specialty care, and communicating with patients.	Consumer Assessment Survey	CA	http://www.opa.ca.gov/report_card/default.asp?lang=en	Yes
Other National							
NCQA	"Recognized Physician Directory"	Individual Physicians and Group Physicians	-Report on quality of physicians (certain specialties) across the country. -Reports on clinical quality measures: diabetes, heart/stroke; and Clinical Information Systems/Evidence-Based Medicine, Patient Education and Support and Care Management	National Diabetes Quality Improvement Alliance	National	http://www.ncqa.org/PhysicianQualityReports.htm	Yes

Criteria for selecting reports: access to reports free and reports include ambulatory measures (not ambulatory surgical center measures) of medical group practices.

Table 3. Selected Health Plan Public Reports								
Sponsorship	**Report Name**	**State**	**Performance Measures**	**Measure**	**Commercial**	**Medicaid**	**Medicare**	**Website**
Government								
Office of the Patient Advocate	"2005 HMO Report Card"	CA	HEDIS CAHPS	-Antibiotic over use in children -Asthma -Diabetes -Heart disease -Immunizations -Mental and behavioral health -Prenatal care -Preventive screening -Postpartum care -Tobacco use	√ √ √ √ √ √ √ √ √ √			http://www.opa.ca.gov/report_card/default.asp?lang=en
Agency for Health Care Administration	"Florida HMO Report 2005"	FL	CAHPS HEDIS	-Asthma -Diabetes -Heart disease -Preventive screening -Satisfaction -Well child visits	√ √ - √ √ √	√ √ - √ √ √	- √ √ √ √ -	http://www.floridahealthstat.com/publications/hrc2005/ratings.shtml
Maryland Healthcare Commission	"2005 Consumer Guide: Measuring the Quality of Maryland HMOs and POS Plans"	MD	HEDIS CAHPS	-Asthma -Diabetes -Heart disease -Immunizations -Mental and behavioral health -Preventive screening -Satisfaction -Well child visits	√ √ √ √ √ √ √ √			http://mhcc.maryland.gov/hmo/consumerguide2005.pdf
Massachusetts Healthcare Purchaser Group	"GIC Health Plan and Hospital Report Card"	MA	HEDIS CAHPS	-Asthma -Diabetes -Heart disease -Mental and behavioral health -Preventive screening -Satisfaction -Tobacco use	√ √ √ √ √ √ √			http://www.mass.gov/gic/annualenroll2005/ReportCard2004.pdf

Table 3. Selected Health Plan Public Reports								
Sponsorship	**Report Name**	**State**	**Performance Measures**	**Measure**	**Commercial**	**Medicaid**	**Medicare**	**Website**
Department of Health and Human Services	"2005 Consumer's Guide to Commercial Managed Care in Missouri;" "2005 Consumer's Guide: MC+ Managed Care in Missouri;" and "2005 Consumer's Guide: Medicare Advantage Care in Missouri"	MO	CAHPS HEDIS NCQA Accreditation JCAHO Accreditation URAC (Utilization Review Accreditation Commission) Accreditation Department of Insurance	-Administrative expense rating -Asthma -Complaint index rating -Diabetes -Heart disease -Immunizations -Mental and behavioral health -National accreditation -Prenatal care -Preventive screening -Satisfaction -Well child visits	√ √ √ √ √ √ √ - √ √ -	- √ - - - √ - - √ √ √	- - √ √ - √ - √ - √ √ -	http://www.dhss.mo.gov/ManagedCare/Publications.html
NJ Department of Health and Senior services	"New Jersey HMO Performance Report"	NJ	HEDIS CAHPS	-Asthma -Diabetes -Heart disease -Immunizations -Mental and behavioral health -Postpartum care -Preventive screening -Satisfaction	√ √ √ √ √ √ √ √			http://nj.gov/health/hmo2005/performance.pdf
Rhode Island Department of Health	"Rhode Island Medicare & Medicaid Fact Book"	RI	HEDIS CAHPS	-Diabetes -Heart disease -Immunizations -Mental and behavioral health -Preventive screening -Satisfaction -Tobacco use		√ √ √ √ √ √ √	√ √ - √ √ √ √	http://www.health.ri.gov/chic/performance/medicare2003.pdf

Table 3. Selected Health Plan Public Reports								
Sponsorship	**Report Name**	**State**	**Performance Measures**	**Measure**	**Commercial**	**Medicaid**	**Medicare**	**Website**
				-Well child visits		√	-	
State of Texas Office of Public Insurance Counsel and Department of State Health Service's Center for Health Statistics	"Guide to Texas HMO Quality: 2005"	TX	HEDIS	-Asthma -Diabetes -Heart disease -Immunizations -Mental and behavioral health -Prenatal care -Postpartum care -Preventive screening -Tobacco use	√ √ √ √ √ √ √ √ √			http://www.opic.state.tx.us/docs/369_guidetohmoquality2005.pdf
Utah Department of Health	"2005 Performance Report for Utah Commercial HMOs and Medicaid & CHIP Health Plans"	UT	HEDIS CAHPS	-Antibiotic overuse in children -Asthma -Diabetes -Heart disease -Immunizations -Mental and behavioral health -Prenatal care -Postpartum care -Preventive screening -Satisfaction -Well child visits	√ √ √ √ √ √ √ √ √ √	- - √ - √ - √ √ √ √ √		http://www.health.utah.gov/hda/consumer_publications/HmoPerformance2005.pdf
Coalition								
New York State Health Accountability Foundation	"New York State HMO Report Card"	NY	HEDIS CAHPS	-Asthma -Diabetes -Heart disease -Immunizations -Satisfaction	√ √ √ √ √			http://www.nyshaf.org/index/hmo_report_card
Wisconsin Collaborative for Healthcare Quality	"2005 Performance and Progress Report"	WI	HEDIS CAHPS	-Diabetes -Heart disease -Satisfaction	√ √ √			http://www.wchq.org/Reporting/